

REMARKS

Claims 1, 3-4, 6-8, 10, 11, 16-18 and 20-32 are pending, the status of the claims is as follows:

Claim 29 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;

Claims 1, 3-4, 6-8, 10, 11, and 16-18 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement;

Claims 1, 3-4, 6-8, 10, 11, and 16-18 are rejected under 35 U.S.C. § 101 because the claimed invention is not supported by either a specific or substantial asserted utility or a well established utility;

Claims 20-32 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,968,294 B2 to Gutta et al (“Gutta”); and

Claims 20, 29, and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent Application No. 63-41000 (“JP(A)63-41000”).

By this response, claims 33 and 34 have been added in order to provide a more sufficient basis of protection for the present invention. These claims do not introduce any new matter.

The courtesy of Examiner Diep to grant applicant’s attorney an interview on October 29, 2008, and follow-up communication thereafter is noted with appreciation. The amendments and remarks herein are consistent with the comments offered in the interview and thereafter.

35 U.S.C. § 112 Written Description Rejection

The rejection of claim 29 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the written description requirement, is respectfully traversed based on the following.

The Examiner has maintained the rejection of claim 29 under the first paragraph of 35 U.S.C. § 112 stating that the claimed computer readable medium is not described in the specification.

Applicants point to disclosure of a ROM or read-only memory in paragraph [0031] as support for the claimed “computer readable medium.” Applicant believes this supports the claim to a “computer readable medium encoded with a program which can be run by a computer to which a trigger signal and continuous images are inputted, said program causing the computer to implement a method.”

Accordingly, it is respectfully requested that the rejection of claim 29 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the written description requirement, be reconsidered and withdrawn.

35 U.S.C. § 112 Enablement Rejection

The rejection of claims 1, 3-4, 6-8, 10-11, and 16-18 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the enablement requirement, is respectfully traversed based on the following.

The rejection of claims 1, 3-4, 6-8, and 10-11 will be addressed first. Claim 1 requires, in part:

A control device for carrying out a predetermined process in response to a trigger signal from a sensor, comprising:

. . .

a determining unit which determines that said trigger signal is a valid signal when said detector detects no change in the images within a predetermined time from the input of said trigger signal to said signal input unit; . . .

The invention of claim 1 evaluates the accuracy of a trigger signal by monitoring images from an image capturing unit such as a camera. If no change in images is detected within a certain amount of time from when the trigger signal started, then for example the

signal is confirmed as accurate (i.e. valid). The Examiner has asserted that the language from claim 1 set out above contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Specifically, the Examiner asserts “nothing in figure 3 [] shows when there is NO moving object detected, go to step S20 as argued.”

In the previous response, applicants have pointed to paragraph [0046] as supporting this claim limitation. Paragraph [0046] teaches that “when no moving-object has been detected without time-out, the moving object detection process (step S-14) are repeatedly executed.” After a “predetermined counted valued has been reached through the counting operation,” the block shown at S15 in figure 3 determines that a time-out has occurred. As shown in figure 3, the condition of “TIME-OUT” leads the process to step S20. As described in paragraph [0046] and shown in figure 3, the condition of a time-out occurs after a predetermined number of loops have detected no moving object. Accordingly, applicants assert that claim 1 is supported by the specification and the rejection has been traversed.

Even though applicants assert that claim 1 is supported by the specification as originally presented, applicants offer the following alternative. To obviate any difference in language between the claim and specification, applicants have amended the specification as follows:

[0050] Moreover, in the case of detection of time-out in step S15, the controller 32 determines whether or not the time-out is abnormal (step S20). The monitor camera 1 has been preliminarily set as to whether a specific time-out is regarded as normal or abnormal, and based upon the set condition, the controller 32 allows the sequence to proceed to step S18 or step S21. In other words, when the time-out is set as normal, the sequence proceeds to step S18, and when it is set as abnormal, the sequence proceeds to step S21. Then, depending on the time-out, it is determined whether the trigger signal is valid or invalid (step S18, S20). In other words, the controller 32 determines the trigger signal as a valid signal when no change is detected in images within a predetermined time from the input of the trigger signal.

The additions to the specification were present in the original claims and therefore present no new matter.

Claims 3-4, 6-8, and 10-11 depend from claim 1 and appear to be rejected under Section 112 because of their dependence from claim 1. Accordingly, in view of the amendment to the specification and traversal of the present rejection with respect to claim 1, the rejection of claims 3-4, 6-8, and 10-11 under Section 112 is also traversed.

The discussion now turns to claims 16 through 18. Claim 16 requires, in part:

A control method of carrying out a predetermined process in response to a trigger signal from a sensor, comprising the steps of:

...
determining said trigger signal is a valid signal when no change is detected in the images within a predetermined time from the input of said trigger signal; ...

The invention of claim 16 evaluates the accuracy of a trigger signal by monitoring images from an image capturing unit such as a camera. If no change in images is detected within a certain amount of time from when the trigger signal started, then for example the signal is confirmed as accurate (i.e. valid). The Examiner has asserted that the language from claim 16 set out above contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Specifically, the Examiner asserts “nothing in figure 3 [] shows when there is NO moving object detected, go to step S20 as argued.”

As discussed above, paragraph [0046] and Figure 3 as originally presented describe determining that a trigger signal is a valid signal when no change in images is detected within a predetermined time from the input of the trigger signal. Moreover, applicants have amended the specification to obviate any differences between the language of claim 16 and the specification. Accordingly, applicants assert that claim 16 is supported by the specification and the rejection has been traversed.

Claims 17 and 18 depend from claim 16 and appear to be rejected under Section 112 because of their dependence from claim 16. Accordingly, in view of the amendment to the specification and traversal of the present rejection with respect to claim 16, the rejection of claims 17 and 18 under Section 112 is also traversed.

Accordingly, it is respectfully requested that the rejection of claims 1, 3-4, 6-8, 10-11, and 16-18 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the enablement requirement, be reconsidered and withdrawn.

35 U.S.C. § 101 Rejection

The rejection of claims 1, 3-4, 6-8, 10-11, and 16-18 under 35 U.S.C. § 101 because the claimed invention is not supported by either a specific or substantial asserted utility or a well established utility, is respectfully traversed based on the following.

The Examiner rejected claims 1, 3-4, 6-8, 10-11, and 16-18 under Section 101 because the Examiner asserts that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Specifically, the Examiner asserts that the specification teaches that when no moving object is detected there is no way for the process to move to step S20 of Figure 3. In view of the amendment to the specification and the foregoing traversal of the Examiner's enablement rejection, the reasons for the Examiner's Section 101 rejection has been obviated.

Accordingly, it is respectfully requested that the rejection of claims 1, 3-4, 6-8, 10-11, and 16-18 under 35 U.S.C. § 101 because the claimed invention is not supported by either a specific or substantial asserted utility or a well established utility, be reconsidered and withdrawn.

35 U.S.C. § 102(e) Rejection

The rejection of claims 20-32 under 35 U.S.C. § 102(e) as being anticipated by Gutta, is respectfully traversed based on the following:

The rejection of claims 20 through 28 will be addressed first. Claim 20 requires:

A control device for carrying out a predetermined process in response to a trigger signal, comprising:

a signal input unit configured to receive said trigger signal;

a detector configured to receive continuous images from an image capturing unit and to detect a change in the images by analyzing the images obtained from said image capturing unit;

a determining unit which determines said trigger signal is an invalid signal when said detector detects a change in the images within a predetermined time period between a first time from the input of said trigger signal to said signal input unit and a second time subsequent to said first time, and determines said trigger signal is a valid signal when said detector detects a change in images before said first time or after said second time; and

a controller carrying out a predetermined process when said trigger signal is determined as a valid signal by the determining unit.

(Emphasis added).

Claim 20 claims a control device that determines whether or not a trigger signal can be ignored (i.e., is invalid) based on whether or not changes (such as motion) are detected in images collected after a trigger signal by analyzing when the changes occur relative to the time of the trigger signal. The invention of claim 20 first receives a trigger signal. For example, a door is opened which causes a magnetic sensor to generate a trigger signal. After the trigger signal is received, the detector of claim 20 monitors images from an image capturing unit and determines whether, and if so when, a change in the images is detected. For example, successive images from a camera are compared in order to detect motion. The claimed determining unit then evaluates the time that a change in the images was detected relative to the time the trigger signal input started in order to determine whether or not the trigger signal can be ignored. In other words, the operation of the invention of claim 20 is first triggered and after being triggered it monitors an image capturing unit for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can be ignored. If those changes fall outside of that expected time, then the trigger signal cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger signal, is used to evaluate the validity of the trigger signal.

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. MPEP § 2131. The identical invention must be shown in as complete detail as is contained in the claim and the elements must be arranged as required by the claim. MPEP § 2131. As explained below, Gutta does not disclose each limitation of claim 20 and thus cannot anticipate.

Gutta discloses a monitoring system that may generate an alarm when certain sensor inputs are received. Gutta discloses that an alarm may be generated when only one sensor input is received or when a combination of sensor inputs are received -- e.g., a loud sound followed by an unrecognized face. (col. 5, lines 32-34). Gutta does not disclose evaluating a trigger signal in order to determine whether or not the trigger signal is valid. Assuming for the sake of argument that the detection of an event by any one of the sensors disclosed in Gutta is a trigger, Gutta would still fail to anticipate because Gutta only discloses that an alarm condition may be created based on the detection of two sequential events without regard to the time between such events. By contrast, in claim 20, a trigger signal occurs and thereafter images from an image capturing apparatus are monitored to determine whether a change in images is detected within an expected time relative to the time of the trigger signal. Gutta does not disclose evaluating a trigger signal based on the time between the occurrence of a trigger signal and a subsequently detected change in images. In order to anticipate claim 20, a reference must disclose a trigger signal, monitoring an image capturing unit for a change in images subsequent to a trigger signal, and evaluating the validity of a trigger signal based on the time between a trigger signal and the detection of a subsequent change in images. It is not sufficient for Gutta to simply disclose generating an alarm based on inputs from two or more sensors individually or in sequence. Accordingly, Gutta cannot anticipate claim 20.

Claims 21 through 28 depend from claim 20 and therefore include all limitations of claim 20. Because Gutta does not anticipate claim 20, claims 21 through 28 are also not anticipated by Gutta for at least the same reasons as claim 20.

Next, the rejection of claim 29 is addressed. Claim 29 requires:

A computer readable medium encoded with a program which can be run by a computer to which a trigger signal and continuous images are inputted, said program causing the computer to implement a method comprising the steps of:

- receiving said trigger signal;
- receiving said continuous images;
- detecting a change in the continuous images by analyzing the continuous images that are received after the input of said trigger signal;
- determining said trigger signal is an invalid signal when a change in images is detected within a predetermined time period between a first time from the input of said trigger signal and a second time subsequent to said first time, and determining said trigger signal as a valid signal when a change in images is detected before said first time or after said second time; and
- carrying out a predetermined process when said trigger signal is determined as a valid signal.

(Emphasis added).

Claim 29 claims a computer program product for use with a computer which when operated on a computer determines whether or not a trigger signal can be ignored (i.e., is invalid) based on whether or not changes (such as motion) are detected in images collected after a trigger signal by analyzing when the changes occur relative to the time of the trigger signal. The operation of the invention of claim 29 is first triggered and after being triggered it monitors a series of images for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can be ignored. If those changes fall outside of that expected time, then the trigger signal cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger signal, is used to evaluate the validity of the trigger signal.

As explained below, Gutta does not disclose each limitation of claim 29 and thus cannot anticipate.

Gutta discloses a monitoring system that may generate an alarm when certain sensor inputs are received. Gutta does not disclose evaluating a trigger signal in order to determine whether or not the trigger signal is valid. Assuming for the sake of argument that the detection of an event by any one of the sensors disclosed in Gutta is a trigger, Gutta would

still fail to anticipate because Gutta only discloses that an alarm condition may be created based on the detection of two sequential events without regard to the time between such events. By contrast, in claim 29, a trigger signal occurs and thereafter continuous images are monitored to determine whether a change in images is detected within an expected time relative to the time of the trigger signal. Gutta does not disclose evaluating a trigger signal based on the time between the occurrence of a trigger signal and a subsequently detected change in images. In order to anticipate claim 29, a reference must disclose a trigger signal, monitoring an image capturing unit for a change in images subsequent to a trigger signal, and evaluating the validity of a trigger signal based on the time between a trigger signal and the detection of a subsequent change in images. It is not sufficient for Gutta to simply disclose generating an alarm based on inputs from two or more sensors individually or in sequence. Accordingly, Gutta cannot anticipate claim 29.

The discussion will not turn to the rejection of claims 30 through 32. Claim 30 requires:

A control method of carrying out a predetermined process in response to a trigger signal, comprising the steps of:
receiving the trigger signal;
receiving continuous images from an image capturing unit;
detecting a change in the images by analyzing the images;
determining said trigger signal is an invalid signal when a change in the images is detected within a predetermined time period between a first time from the input of said trigger signal and a second time subsequent to said first time, and determining said trigger signal is a valid signal when a change in images is detected before said first time or after said second time; and
carrying out a predetermined process when said trigger signal is determined as a valid signal.
(Emphasis added).

Claim 30 claims a method that determines whether or not a trigger signal can be ignored (i.e., is invalid) based on whether or not changes (such as motion) are detected in images collected after a trigger signal by analyzing when the changes occur relative to the time of the trigger signal. The operation of the invention of claim 30 is first triggered and after being triggered it monitors a series of images for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can

be ignored. If those changes fall outside of that expected time, then the trigger signal cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger signal, is used to evaluate the validity of the trigger signal.

As explained below, Gutta does not disclose each limitation of claim 30 and thus cannot anticipate.

Gutta discloses a monitoring system that may generate an alarm when certain sensor inputs are received. Gutta does not disclose evaluating a trigger signal in order to determine whether or not the trigger signal is valid. Assuming for the sake of argument that the detection of an event by any one of the sensors disclosed in Gutta is a trigger, Gutta would still fail to anticipate because Gutta only discloses that an alarm condition may be created based on the detection of two sequential events without regard to the time between such events. By contrast, in claim 30, a trigger signal occurs and thereafter continuous images are monitored to determine whether a change in images is detected within an expected time relative to the time of the trigger signal. Gutta does not disclose evaluating a trigger signal based on the time between the occurrence of a trigger signal and a subsequently detected change in images. In order to anticipate claim 30, a reference must disclose a trigger signal, monitoring an image capturing unit for a change in images subsequent to a trigger signal, and evaluating the validity of a trigger signal based on the time between a trigger signal and the detection of a subsequent change in images. It is not sufficient for Gutta to simply disclose generating an alarm based on inputs from two or more sensors individually or in sequence. Accordingly, Gutta cannot anticipate claim 30.

Claims 31 and 32 depend from claim 30 and therefore include all limitations of claim 30. Because Gutta does not anticipate claim 30, claims 31 and 32 are also not anticipated by Gutta for at least the same reasons as claim 30.

Accordingly, it is respectfully requested that the rejection of claims 20-32 under 35 U.S.C. § 102(e) as being anticipated by Gutta, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejection

The rejection of claims 20, 29, and 30 under 35 U.S.C. § 103(a), as being unpatentable over JP(A)63-41000, is respectfully traversed based on the following.

First, the rejection of claim 20 is addressed. Claim 20 requires:

A control device for carrying out a predetermined process in response to a trigger signal, comprising:

a signal input unit configured to receive said trigger signal;

a detector configured to receive continuous images from an image capturing unit and to detect a change in the images by analyzing the images obtained from said image capturing unit;

a determining unit which determines said trigger signal is an invalid signal when said detector detects a change in the images within a predetermined time period between a first time from the input of said trigger signal to said signal input unit and a second time subsequent to said first time, and determines said trigger signal is a valid signal when said detector detects a change in images before said first time or after said second time; and

a controller carrying out a predetermined process when said trigger signal is determined as a valid signal by the determining unit.
(Emphasis Added).

As discussed above, claim 20 claims a control device that determines whether or not a trigger signal can be ignored based on whether or not changes such as motion are detected within an expected time after the trigger. The operation of the invention of claim 20 is first triggered and after being triggered it monitors an image capturing unit for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can be ignored. If those changes fall outside of that expected time, then the trigger cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger, is used to evaluate the accuracy of the trigger.

In contrast, JP(A)63-41000 discloses a vehicle speed measurement apparatus that compares the difference in time between two images of a vehicle taken by two different cameras at a known distance apart in order to determine the vehicle's speed. JP(A)63-41000 discloses images from each of the two cameras are processed to identify the plate number of a vehicle. After identifying the same plate number in an image from the first camera and in an

image from the second camera, the claimed invention compares the image capturing times of those images to determine if the running speed of the vehicle is greater or smaller than a set running speed. To the extent that the examiner asserts that capturing the image of a vehicle corresponds to inputting a trigger signal, JP(A)63-41000 does not examine images subsequent to the trigger to detect a change in those subsequent images. JP(A)63-41000 captures an image at one camera and then monitors a second camera for the appearance of that same image in order to determine the difference in time between the two image captures. By contrast, the invention of claim 20 is triggered by a signal and then it monitors a camera for a change in the images such as motion. Thus, JP(A)63-41000 fails to disclose that a “detector detects a change in the images” as required by claim 20. Accordingly, JP(A)63-41000 fails to disclose at least a determining unit as required by claim 20. Because JP(A)63-41000 fails to disclose or suggest this limitation of claim 20, JP(A)63-41000 cannot render claim 20 obvious.

Claim 29 requires:

A computer readable medium encoded with a program which can be run by a computer to which a trigger signal and continuous images are inputted, said program causing the computer to implement a method comprising the steps of:

- receiving said trigger signal;
- receiving said continuous images;
- detecting a change in the continuous images by analyzing the continuous images that are received after the input of said trigger signal;
- determining said trigger signal is an invalid signal when a change in images is detected within a predetermined time period between a first time from the input of said trigger signal and a second time subsequent to said first time, and determining said trigger signal as a valid signal when a change in images is detected before said first time or after said second time; and
- carrying out a predetermined process when said trigger signal is determined as a valid signal.

(Emphasis Added).

As discussed above, claim 29 claims a computer program product for use with a computer which when operated on a computer determines whether or not a trigger signal can be ignored (i.e., is invalid) based on whether or not changes (such as motion) are detected in images collected after a trigger signal by analyzing when the changes occur relative to the

time of the trigger signal. The operation of the invention of claim 29 is first triggered and after being triggered it monitors a series of images for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can be ignored. If those changes fall outside of that expected time, then the trigger signal cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger signal, is used to evaluate the validity of the trigger signal.

In contrast, JP(A)63-41000 discloses a vehicle speed measurement apparatus that compares the difference in time between two images of a vehicle taken by two different cameras at a known distance apart in order to determine the vehicle's speed. To the extent that the examiner asserts that capturing the image of a vehicle at corresponds to inputting a trigger signal, JP(A)63-41000 does not examine images subsequent to the trigger to detect a change in those subsequent images. JP(A)63-41000 captures an image at one camera and then monitors a second camera for the appearance of that same image in order to determine the difference in time between the two image captures. By contrast, the invention of claim 29 is triggered by a signal and then it monitors a camera for a change in the images such as motion. Thus, JP(A)63-41000 fails to disclose "detecting a change in the continuous images" as required by claim 29. Accordingly, JP(A)63-41000 fails to disclose at least this element required by claim 29. Because JP(A)63-41000 fails to disclose or suggest this limitation of claim 29, JP(A)63-41000 cannot render claim 29 obvious.

Claim 30 requires:

A control method of carrying out a predetermined process in response to a trigger signal, comprising the steps of:
receiving the trigger signal;
receiving continuous images from an image capturing unit;
detecting a change in the images by analyzing the images;
determining said trigger signal is an invalid signal when a change in the images is detected within a predetermined time period between a first time from the input of said trigger signal and a second time subsequent to said first time, and determining said trigger signal is a valid signal when a change in images is detected before said first time or after said second time; and
carrying out a predetermined process when said trigger signal is determined as a valid signal.

(Emphasis Added).

As discussed above, claim 30 claims a method that determines whether or not a trigger signal can be ignored (i.e., is invalid) based on whether or not changes (such as motion) are detected in images collected after a trigger signal by analyzing when the changes occur relative to the time of the trigger signal. The operation of the invention of claim 30 is first triggered and after being triggered it monitors a series of images for changes such as motion. If those changes fall within a window of time after the trigger, then for example the trigger signal can be ignored. If those changes fall outside of that expected time, then the trigger signal cannot be ignored and a predetermined process is carried out. Thus, the time of the change, relative to the trigger signal, is used to evaluate the validity of the trigger signal.

In contrast, JP(A)63-41000 discloses a vehicle speed measurement apparatus that compares the difference in time between two images of a vehicle taken by two different cameras at a known distance apart in order to determine the vehicle's speed. To the extent that the examiner asserts that capturing the image of a vehicle at corresponds to inputting a trigger signal, JP(A)63-41000 does not examine images subsequent to the trigger to detect a change in those subsequent images. JP(A)63-41000 captures an image at one camera and then monitors a second camera for the appearance of that same image in order to determine the difference in time between the two image captures. By contrast, the invention of claim 30 is triggered by a signal and then it monitors a camera for a change in the images such as motion. Thus, JP(A)63-41000 fails to disclose the step of "detecting a change in the images" as required by claim 30. Accordingly, JP(A)63-41000 fails to disclose at least this element required by claim 30. Because JP(A)63-41000 fails to disclose or suggest this limitation of claim 30 JP(A)63-41000 cannot render claim 30 obvious.

Accordingly, based on the foregoing, it is respectfully requested that the rejection of claims 20, 29, and 30 under 35 U.S.C. § 103(a) as being unpatentable over JP(A)63-41000, be reconsidered and withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are respectfully requested.

This Amendment increases the number of independent claims by 2 from 5 to 7 and increases the total number of claims by 2 from 24 to 26, but does not present any multiple dependency claims. Accordingly, please charge the amount of \$544.00 to Sidley Austin LLP Deposit Account No. 18-1260.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin LLP Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

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